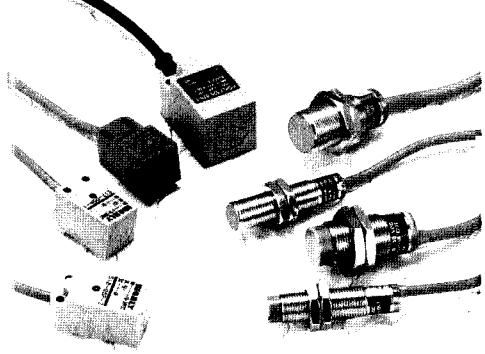
PROXIMITY SWITCH



■ GENERAL SPECIFICATIONS

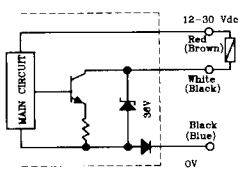
Operating Voltage	DC 10~30V AC 90~250V
Current Consumption	DC type: 10mA max. AC type: 5mA max. Capacitive type: 15mA max.
Sensing Target	Inductive type: magnetic metal. Capacitive type: metal or dielectric material.
Hysteresis	less than 10% Sn (sensing distance).
Load Current	100 mA max.
Operating Temperature	-25℃ to +70℃
Operating Humidity	35-95% RH.
Residual Voltage	DC type: 1V max. AC type: 8.5V max.
Insulation Resistance	50 MΩ min. (at 500VDC).
Dielectric Strength	DC type: AC 1000V. AC type: AC 2000V. 50/60 Hz for 1 minute between current-carrying part and ground current.
Leakage Current	DC type: 0.05 mA max. AC type: 2mA max.

FEATURES:

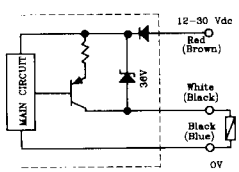
Wide variety of model
Wide operating voltage range
Short circuit protected
Conforming to IP66
Fast response

■ OUTPUT STAGE DIAGRAM

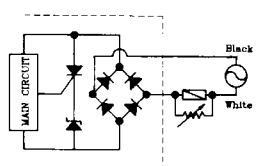
NPN



PNP



AC



■ ORDER GUIDE

P12 — 05N — 1 — P — V

- Housing outline
  - T: Inductive Thread Round
  - S: Inductive Square
  - P: Inductive Plane
  - PS: Inductive Plane Housing with insert Screw
  - SC: Capacitive Square
  - RC: Capacitive Round
- Diameter of Sensing Face
  - Unit: mm (for example: 12x12 mm)
- Sensing Distance
  - Unit: mm (for example: 5mm)
- Output Stage
  - N: NPN open collector DC mode
  - P: PNP open collector DC mode
  - A: AC two wire AC mode
- Output Fuction
  - 1: N. O. Normally Open
  - 2: N. C. Normally close
- Housing Material
  - P: Plastic
  - M: Metal
- Sensing Direction
  - V: Vertical
  - H: Horizontal

INDUCTIVE PROXIMITY SWITCH

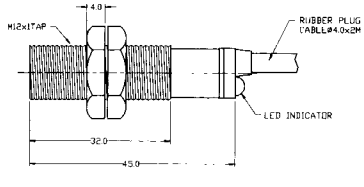
TYPE / ITEM NO. / Output Circuit	Inductive Thread Round Metal Body							
	MS12		MS18		M18		M30	
	Shield	Non-Shield	Shield	Non-Shield	Shield	Non-Shield	Shield	Non-Shield
NPN NO	TS12-02N-1	TS12-05N-1	TS18-05N-1	TS18-08N-1			T30-10N-1	T30-15N-1
NPN NC	TS12-02N-2	TS12-05N-2	TS18-05N-2	TS18-08N-2			T30-10N-2	T30-15N-2
PNP NO	TS12-02P-1	TS12-05P-1	TS18-05P-1	TS18-08P-1			T30-10P-1	T30-15P-1
PNP NC	TS12-02P-2	TS12-05P-2	TS18-05P-2	TS18-08P-2			T30-10P-2	T30-15P-2
AC NO					T18-05A-1	T18-08A-1	T30-10A-1	T30-15A-1
Sensing Distance (Sn) (Sn)	2mm ± 10%	5mm ± 10%	5mm ± 10%	8mm ± 10%	5mm ± 10%	8mm ± 10%	10mm ± 10%	15mm ± 10%
Effective Distance	0-1.6mm	0-4mm	0-4mm	0-6.4mm	0-4mm	0-6.4mm	0-8mm	0-12mm
Standard Target (iron)	12 x 12 x 1 mm		18 x 18 x 1 mm				30 x 30 x 1 mm	
Switching Frequency max.	1.5 KHZ		1.5 KHZ		10 HZ	10 HZ	DC TYPE: 1 KHZ AC TYPE: 10 HZ	
Circuit Protection *1	▲●		▲●				▲●	

NOTE: *1 ▲Output short circuit protection, ● Reverse polority protection of supply voltage

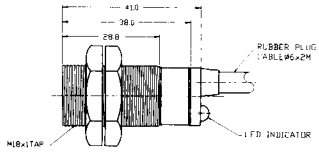
■ DIMENSIONS

(unit: mm)

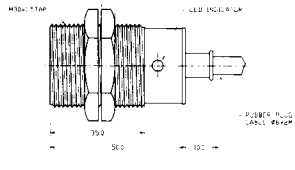
MS12 Shield



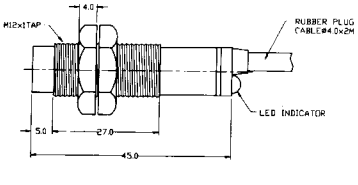
MS18 Shield



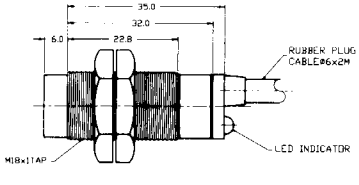
M30 Shield



MS12 No-Shield



MS18 No-Shield



M30 No-Shield